

NEC4

Term Maintenance Contract

Scope S2200 Client's service specification and drawings

Series 1700 – Structural Concrete DN581359

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1708.5AR: Casting against earth face

1. Where on the Task Order concrete is detailed as being cast against an earth face then the Contractor shall take all reasonable care to ensure that the concrete is not contaminated during the pour. Where concrete below ground level is detailed as having a formed finish or is not detailed as being cast against the earth face, the Contractor shall only be allowed to cast the concrete against the earth face with the prior consent of the *Service Manager* after having shown what steps they intend to take to ensure that the structural integrity of the concrete is unaffected.

1770AR: Haunching to Bridges

2. Where instructed by a Package Order/Task Order (as applicable) the *Contractor* shall carry out haunching to bridges in accordance with scheme specific drawings and specifications.

1708.4SR: Formed Surfaces - Classes of Finish

3. Formed Surfaces - Classes of Finish

Formwork as described in sub-Clause (MCDHW) 1710.2 shall be capable of producing the following finishes where required in the Works:

- i. Class F1. No extra requirement.
- ii. Class F2.

The irregularities in the finish shall be no greater than those obtained from the use of wrought thicknessed square edged boards arranged in a uniform pattern. The finish is intended to be left as struck but imperfections such as fins and surface discolouration shall be made good.

iii. Class F3.

The resulting finish shall be smooth and of uniform texture and appearance. The formwork lining shall leave no stain on the concrete and shall be so joined and fixed to its backing that it imparts no blemishes. It shall be of the same type and obtained from only one source throughout any one structure. The *Contractor* shall make good any imperfections in the finish. Internal ties and embedded metal parts shall not be used.

iv. Class F4.

The requirements for Class F4 are as for Class F3 except that internal ties and embedded metal parts shall be permitted. The ties shall be positioned only in rebates or in other positions as described in the Package Order/Task Order (as applicable).

v. Class F5.

The resulting finish shall be smooth and of uniform texture. Any blemishes and imperfections, such as discolouration and fins, shall be made good. Provision for the embedment of metal parts in the Permanent Works on a regular spacing, shall be allowed.

vi. Other classes.

The finishes shall comply with the specific requirements described in the Package Order/Task Order (as applicable).

Permanently exposed concrete surfaces to all Classes of finish other than F1 shall be protected from rust marks and stains of all kinds.

Unless otherwise described in the Package Order/Task Order (as applicable), all formwork joints for all classes of finish other than F1 shall form a regular pattern with horizontal and vertical lines continuous throughout each structure and all construction joints shall coincide with these horizontal or vertical lines.

4. Unformed Surfaces - Classes of Finish

i. Class U1 finish.

The concrete shall be levelled and screeded to produce a uniform surface to the profile shown in the Package Order/Task Order (as applicable). No further work shall be applied to the surface unless it is used as a first stage for another class of finish.

ii. Class U2 finish.

After the concrete has hardened sufficiently, the Class U1 finish shall be floated by hand or machine sufficiently only to produce a uniform surface free from screed marks.

iii. Class U3 finish.

When the moisture has disappeared and the concrete has hardened sufficiently to prevent laitance from being worked to the surface, a Class U1 finish shall be steel-trowelled under firm pressure to produce a dense, smooth uniform surface free from trowel marks.

iv. Class U4 finish.

This finish is for bridge decks that are to receive waterproofing systems. The concrete shall be levelled and screeded to produce a uniform surface. When the concrete has sufficiently hardened and the bleed water evaporated the surface shall be trowelled to produce a hard dense surface free from screed marks and exposed aggregate. Finally the surface shall be lightly textured with a wooden float or equivalent.

Alternatively the concrete shall be levelled, screeded and floated to produce a uniform surface and immediately before the waterproofing operation this surface shall be water jetted or grit blasted to provide a lightly textured finish.

The finished surface shall not deviate from the required profile by more than 10mm over a 3 metre gauge length or have any abrupt irregularities more than 3mm.

v. Class U5 finish.

This finish is for footbridge surfaces that are to receive either separate or combined systems, or coatings of waterproofing and surfacing materials. The concrete shall be levelled and screeded to produce a uniform finish. When the concrete has sufficiently hardened to prevent laitance being worked to the surface it shall be floated to produce a surface free from screed marks and exposed aggregate. Finally the surface shall be textured to suit the requirements of the particular waterproofing and surfacing system. The accuracy of the finished surface shall be such that it does not deviate from the required profile by more than 5mm over a 3 metre gauge length or have any abrupt irregularities.

vi. Other classes.

The finishes shall comply with the specific requirements described in the Package Order/Task Order (as applicable).